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ABSTRACT

The use of error analysis in second language instruction is discussed. Error analysis is seen as an effective aid to second language remedial teaching if errors are treated as evidence of learners' strategies, and analyzed in terms of their significance. A rule-oriented analysis explains why errors are made and implies what ought to be done to equip the language learner with better strategies. Priority is given to errors that cause hindrance to communication, but it is argued that "local" errors that are stigmatized or considered "foreign" by the native speaker should not be ignored. Theories about native language learning and second language learning are considered. (SW)

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Error Analysis as an Aid to Second Language Acquisition

Anjani Kumar Sinha & Usha K. Sinha

When the grammar-translation method of second or foreign language teaching was given up in favour of the audio-lingual approach, it was claimed that the key to the new method lay in automatic control achieved through repeated exposure to a model mastered through massive repetition. This professed objective of achieving language control to the point of automaticity drew theoretical support from the Skinnerian concept of language learning (cf. Skinner, 1954). However, it was soon realized that the audio-lingual approach worked more successfully with the children than with the adult learning a second language. This was because the child was less resistant to the fatigue resulting from repetition and less demanding to know why the new language worked the way it worked than the adult; he was more receptive to "acting out" (the role-playing involved in dialogue presentation) than the adult (cf. Pillet, 1974, p. 20). But as experience showed, even the child could not respond as predictably as Skinner's pigeons; he was more individualistic and complex than the experimental bird. The language teachers and linguists who were committed to behaviourism came up with the thesis that the gap between the material taught by the teacher and the material learned by the student was due to the 'mother tongue interference'. According to Lado (1957):

> Individuals tend to transfer the forms and meanings, and the distribution of forms and meanings of their native language and culture to the foreign language and culture, both productively when attempting to speak the language ... and receptively when attempting to grasp and understand the language...as practised by natives (p. 2) ...*in the comparison between native and foreign language lies the key to ease any difficulty in foreign language learning* (p. 1) (emphasis added).

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Even before Lado, Fries (1945) had realized the need for remedial work in second language teaching and suggested that the most effective remedial work was that which was based on "the scientific description of the language of the learned and carefully compared with a parallel description of the native language of the learner" (Fries 1945, p. 9). The assumption that Fries, Lado and other structuralists make is that the linguistic elements of the second language that are similar to those of the first language are easy to acquire. However, some recent research in the field has shown that it is not necessarily true. Buteau (1970), who analysed errors made in a French grammar test by 124 first year college entrants, reports that the French sentences "that correspond literally to their English equivalents are not necessarily the easiest to learn" (p. 139); on the other hand, gender agreement, which is almost completely absent in English, was correctly achieved by 90% of the group (p. 144). In Grauberg's (1971) study of errors made by foreign learners of German, mother tongue interference could account for only 25% of the lexical errors. Nemser (1971), who tested the predictability of interference phenomena in the English speech of native speakers of Hungarian, found that error rates were "far lower than anticipated" and that "they were as high in familiar as in unfamiliar contexts" (p. 96). These results confirm Hamp's (1968) apprehension that it is difficult to predict with any sort of certainty which mistakes of language learning will be made and when they will be made, on the basis of reasoned contrastive analysis.[1]

The contrastive analysis hypothesis is based on the assumptions that (a) language learning is habit formation and (b) the process of habit formation for the second language (L_2) acquisition is different from that for the first language (L_1) acquisition just as L_2 is different from L_1. As recent research has shown, these assumptions are also open to question. Ravem (1974) studied the development of *wh* - questions in Norwegian children learning English and compared it with Brown's (1968) study of English-speaking children acquiring *wh*-questions. In spite of the structural difference in *wh*-questions in English and Norwegian, he found that the process of acquisition was the same; children started with sentences like (1a) and came to (1c) through (1b):

1a. Why you not like icecream ?
b. Why you don't like icecream ?
c. Why don't you like icecream ?

Ervin-Trip (1974) compared evidence involving order and process of L_1 acquisition to that of L_2 acquisition (learning of French by English-speakers

in France) in a natural milieu in which communication rather than form was the focus of attention. She came to the conclusion that first and second language learning was "similar in natural situations" (p. 126).[2] Neither Ravem nor Ervin-Tripp has claimed that L_1 does not interfere in any way with the process of the acquisition of L_2; what they have emphasized is that, other things being equal,[3] the process of acquiring L_2 is similar to the process of acquiring L_1.

Behaviourists are interested in contrastive analysis because they think it can predict errors an L_2 learner is likely to make. If one knows the likely errors, one can devise ways and means to prevent their occurrence, they argue. They presume it is possible for the language to be presented so well and imitated so faithfully that the student will learn it, stage by stage, without falling into any error (Lee, 1970). Even those who concede that language is seldom acquired without making errors (e.g. Morgan, 1956) think that the gap between what is taught and what is learned exists because of "mishearings and misunderstandings". Remedial teaching based on error analysis, they argue, can very well fill in the gap; it is needed to remove any 'distortion' of the material presented in the classroom. In short, from their point of view, the error committed by the learner is a proof of 'distortion' that must be set right. This, however, is not the point of view of those who view language acquisition as a developmental (rather than habit-forming) process. For them, errors "provide evidence of the system of the language that he [i.e. the language learner] is using (i.e. has learned) at a particular point in the course" (Corder 1967, p. 167). For a behaviourist, errors are pathological manifestations that can and should be eradicated for developmental psychologists and psycholinguists; they are manifestations of "transitional competence" (Corder 1967, Duskova 1969); they tell us how far towards the goal the learner has progressed (and, consequently, what remains for him to learn). A good language learner is often not inhibited; he is a willing and accurate guesser, constantly looking for patterns and willing to generalize. His errors indicate what strategies he is adopting and to what extent they are productive. A language learner who is not willing to open his mouth till he is sure of being correct is less likely to get his generalization tested and confirmed and less ready to adjust it than the learner who is willing to communicate even if he makes an error. It is in this sense that Dulay and Burt (1974a) suggest, "You cannot learn without goofing".[4]

Dulay and Burt (1974b, p. 132) report 513 'unambiguous'[5] errors from the speech of 179 Spanish-speaking English learners which shows that 87.1% of the errors (447 out of 513) were 'developmental', i.e. they reflected the same

structures as used by children learning English as L_1[6]. Cohen and Robbins (1976), who analyzed written assignments of Koreans and Chinese learning English and, later on, interviewed those students to find explanation for the errors, report several cases involving developmental errors. For instance, a student who wrote *Man can develops*.....argued that *man* is singular and so it must take its finite verb with *-s*. Another student who wrote *The boy have some problems* suggested that she had used the term *the boy* as a group. One may argue like Kellerman (1974) that the learners' intuition about their errors may be *post hoc* rationalization which are invalid, but it does not necessarily rule out the possibility of getting a genuine explanation. Nemser (1971) thinks that learning a second language involves a series of approximative reorganizations. Though these approximate systems are transient, their features are not sporadic. In other words, at given stages of development of competence in the target language, the appearance of certain features is not at random. For example, we may go back to the acquisition of *wh* questions by Norwegian children (quoted by Ravem, 1974). At a certain point the student could say only (1a), then he picked up (1b) and finally (1c). As Ravem reports, there were periods when the learners used either (1a) or (1b); later on, they used either (1b) or (1c). But there was no time when they used either (1a) or (1c) as alternatives. In other words, though there were periods when they were not sure of which one was correct, their various answers were not sporadic; they gradually moved towards the standard *wh*-structure. Variability is another piece of evidence that shows the developmental nature of L_2 acquisition. Kellerman (1974) thinks that it is a problem to deal with a learner who 'corrected' an error-free sentence by producing an erroneous one in its place. In fact, there are several possible directions of correction; while an erroneous form could be altered to an error-free one and vice-versa, it could also be possible for one erroneous form to be replaced by another. All these cases involve transitional competence and suggest to the language teacher that the student needs more help than he has received so far.

While developmental approach to error analysis rightly emphasizes the significance of errors in the process of L_2 acquisition, it raises a host of questions that are yet to be answered satisfactorily. Dulay and Burt (1972, 1973), Corder (1967) Dusková (1969) and Richards (1972) suggest that one must distinguish between errors at the level of *performance* from errors at the level of *competence*. Corder (1971, p. 152) suggests that a performance error is potentially correctable by its author (i.e. he can identify it and correct it on second thought, or he can correct it when it is pointed out to him). Kellerman (1974) argues that such a definition is not correct or

adequate, for it is possible for the author to change the form not because he considers it incorrect but, on second reading, he finds the alternative form more appropriate for the context. In other words, the changed form may or may not indicate with certainty that the error was at the level of performance; it may very well be at the level of competence[7] (i.e. there may be uncertainty in the mind of the speaker/writer in regard to the relative correctness of competing forms). Cohen and Robbins (1976) refer to several cases in which students were not only able to correct their errors but also admitted, in some cases even insisted, that they were "careless mistakes" and that they knew the rules. In one case, the student said, "Most of the rules I do know but... they do not come [to me] so natural(ly)" (p. 58), In spite of the fact that Kellerman's objections have some substance, we think that 'subsequent correctability' is a good criterion for distinguishing a performance error from a competence error.

Corder (1967) and Dusková (1969) want to distinguish 'mistakes' from 'errors'. Corder suggests that mistakes are random (i.e. non-systematic) that occur due to memory lapses, physical states such as tiredness and psychological conditions such as strong emotion. Such errors are usually corrected by those who make them, with complete confidence. Fromkin (1974) provides interesting examples of 'lapses' or 'slips' such as (2b) for (2a), and (3b) for (3a):

2a. an interesting fact about clinical work.
b. *a clinical fact about interesting work. (p. 27)

3a. My throat is sore.
b. *My sore is throat. (p. 30)

Sentences like (4) and (5) are clear examples of slips; they do not suggest that the speaker does not know the difference between 'top' and 'bottom', or 'hot' and 'cold':

4a. It's at the bottom—I mean top—of the stack of books.
b. This room is too damn hot—cold. (.236)

However, it is not obvious that sentences like (5c) and (6c) are slips; they may be performance errors or competence errors based on over-generalization:

5a. Last night I dreamed that the war went on for ever.
b. Last night I had a nightmare that the war went on for ever.
c. *Last night I nightmared that the war went on for ever.
(Fromkin 1974, p. 30)

6a. a card that I just sent him..
b. a card that I just sent to him..
c. *a card that I just sent him to.. (p. 31)

The claim that mistakes or slips are "of no significance to the process of language learning" (Corder (1967, p. 167) is not precisely correct in view of data such as in (7) :

	intended utterance		*actual utterance*
7a.	a cup of coffee	—	a cuff of coffee
b.	fatal flaws	—	flatal flows
c.	parking space	—	sparking space
d.	vocal cords	—	vocal gourds
e.	head coach	—	hedge coach

(Fromkin 1974, Appendix, pp. 243-269).

Fromkin cites numerous examples involving consonant reversals, deletion, addition and movement. As these errors seem to fall into certain patterns (e. g. initial /p/ replaced by /f/ if the next word starts with /f/, formation of initial clusters such as /fɪ/ and/sp/ if the next word begins with such a cluster), they are important for students as well as their teachers. Fromkin has examples of lexical 'blends' which the language does not permit (e. g. *pain kills* for *pain pills*, cf. *painkillers*). Obviously, they are not just slips ; they are errors which need to be explained by pointing out the existence of *painpills*, *painkillers* but not **painkills*. If some one uses *board and room* for *room and board* or *don't burn your toes* for *don't burn your fingers* and is not able to correct what he has done, it is obvious that he does not know these expressions. It will not be correct to generalize that word-substitution causes errors in view of examples such as in (2, 4), but it would be wrong to suggest that they are all mere lapses.

One practical difficulty with the subsequent correction hypothesis (in order to determine whether an item is an error or a 'lapse' or mistake) is that the error analyst may not always have access to his informants.[8] As a way out of such a situation the analyst may concentrate only on errors which are typically frequent. Bennett (1974, p. 236) favours such an approach for two reasons. First of all, it becomes possible to characterize what is typical about errors, in spite of considerable differences betokened by individual errors. Secondly, when the extent of systematic deviations may be seen, non-systematic deviations can be ignored. Adopting this approach, however, means relying on a performance (as against a competence) model. The frequency of certain errors may be very high because of the topic of essay

or composition, which may not necessarily indicate errors which hinder communication. Burt and Kiparsky (1972) had this problem in mind when they classified errors into 'global' and 'local' and advised the tolerance of the latter while repairing the former. Burt (1975) defines 'global' errors as "errors that significantly hinder communication" and "affect overall sentence organization" (p. 56); she defines 'local' errors as "errors that affect single element (constituent) in a sentence" and "do not hinder communication significantly" (p. 57). According to her (8-10) are examples of 'global' errors whereas (11) is an example of a 'local' error :

8. *English language use many people.
(for 'many people use the English language')

9. *He will be rich until he marries.
(for 'he will be rich *when* he marries')

10. *The student's proposal looked into the principal.
(for 'The student's proposal *was* looked into *by* the principal').

11. *Why we like each other ?

Burt (1975) suggests that wrong word order [as in (8)], missing, wrong or misplaced sentence connectors, [as in (9)] missing cues that signify application of some transformation [e. g. the omission of the auxiliary *was* and preposition *by* in the passive sentence in (10)] are cases involving 'global' errors whereas errors in noun and verb inflections, articles, auxiliaries and the formation of quantifiers are 'local' errors. Burt's (1975) observations are based on the reactions of native speakers to different erroneous sentences. Her test cases were sentences such as (11).[9] Since her informants suggested unanimously that (11 e) was more comprehensible than either (11 b), (11 c) or (11 d), she concluded that correction of 'global' errors was more essential than that of 'local' errors.

11a. *English language use much people.
b. **The* English language use much people.
c. *English language use *many* people.
d. **The* English language use *many* people.
e. *Much people use English language. (only word-order corrected).

However, her definition of a local error is rather arbitrary. An error may be manifested by a single constituent in the sentence and yet it may affect the overall organization of the sentence. For instance, if some one

says or writes *Fred has come to Chicago* for *Fred came to Chicago* he commits a local error in the sense that he has used the present perfect for the simple past tense. But he has caused a misunderstanding at the conceptual level, for if the listener/reader is interested in meeting Fred, he might think that he is still in Chicago (and it is possible to meet him).

Bennett (1974) suggests that the goal of remedial teaching based on error analysis is "to bring the learner back from the transient language to whatever is defined as the mainstream language he is learning" (p. 245). The questions that he leaves unanswered are: what is the mainstream of a language and who is going to define it? Most foreign language teachers use formal styles of the standard dialect of the target language, which results in identifying as deviant many utterances of the learner that conform to the norms of other varieties of the language. For instance, A. Sinha (1967) counts *humans* (for 'human beings') as an error in Indian English whereas it is a well-accepted usage in American and British English. Taylor (1976) considers (12a) an error but admits that it is a possible sentence in American English:

12a. Is anybody home?
b. Is anybody at home?

Basil Cottle (1975, p. 45) regrets that even educated British people say *we sung, I seen him*, and *I done it*. Edwin Newman (1974, p. 21-23) speaks against the widespread use of expressions such as *surrounded on three sides, thunderstorm activity, a scattered shower* (as in "We may have a scattered shower", a favourite expression of some weathermen). In spite of Newman's denunciation of *convince to* (as against 'convince of'), sentences such as (13) and (14) are widely used:

13. Secretary of State Vance was not evidently able to *convince* Israel *to* accept his peace proposals.

14. It may be impossible to *convince* many people *to* stop smoking.

These and many other cases discussed in Newman (1974, 1976) are not examples from a particular variety or dialect of English; they are used by all types of educated native speakers, even though such usage is disapproved by language purists. Cases involving changing patterns of the language do not impair comprehension and should be ignored.[10] But even if we ignore them, there is still a scale of deviant forms varying in the degree of deviation, a squish, and it is difficult to decide where to draw a dividing line on the scale. It becomes even more difficult in view of arguments of people such as Kachru

(1965) and Richards (1972) that some deviations can be explained in terms of the socio-cultural context in which the language functions. Kachru argues that deviation is a part of the naturalization of a foreign language and is, essentially, 'culture-bound'.[11]

We think that the question of error analysis cannot be viewed properly without going into the sociolinguistic aspect of the L_2 learning. Even if we agree with Labov (1970, 1972) that Black English Vernacular is "a separate system closely related to standard English but set apart from the surrounding. White dialects by a number of persistent and systematic differences" (1972, p. 237), we cannot ignore the fact that acquisition of standard American English is a *must* for a black student for his social mobility. He need not forget Black English Vernacular, nor should he be looked down upon for his dialect. But, for him, it is as essential—if not more—to acquire standard American English as it is for any non-English-speaking immigrant. Failure to do so keeps his mobility confined primarily to his own ethnic group. For this reason, it is in the interest of the black student that he is made aware of all features of the standard language. In other words, in such a case, every deviation from the the accepted (i.e. non-controversial) norm should be counted as an error, (though it does not imply that all errors demand equal attention). In other sociolinguistic contexts, the approach could be different. For instance, a French-speaking Canadian in Montreal, who is learning English as L_2, need not be subjected to such a standard. In view of the prevailing resistance of French Canadians to English, the emphasis should be more on comprehensibility than on approximity to the Standard Canadian English. If a Japanese or a Dane or a Russian learns English, it has a functional value for him (e.g. international communication) and comprehensibility is his main target, but that may not be true for a learner from every country where English is taught as a foreign language. For instance, in India English is needed not so much for international trade and communication as for interstate bureaucratic communication and for academic purposes (e.g. English is the medium of instruction in most of the Indian universities). Besides, in the Indian context, any deviation from the norm of a language is very much looked down upon.[12] Though a person saying or writing *he can speaks English* or *he come from India* could be easily understood, he would be immediately branded 'uncivilized' or 'uneducated' and his purpose of learning English (e.g. to manipulate social mobility in a "prestige setting") would be defeated. In short, the degree of seriousness of an error depends not only on the role it plays in hindering or distorting communication (to be extent it causes the listener/reader to misunderstand the message or to consider the message incomprehensible) but also on how socially stigmatized

it is and to what extent it sounds 'foreign' (for instance, 'un-English') to a native-speaker.

In the error-analyses we have looked into (e.g. A. Sinha 1967, Dusková 1969, Bhatia 1974, Ghadessy 1976) the same numerical value has been assigned to every error. For instance, there is one point for the omission or insertion of an article, the use of a simple past tense for present perfect, the wrong use of a preposition, lack of subject-verb agreement (in third person singular, present tense), lack of inversion or any other grammatical or lexical error. Such analyses fail to present a correct picture of the relative seriousness of errors. Burt *et al* (1976), who believe in relative seriousness of errors, have assigned different points to different categories of errors. For instance, all plain words (verbs, adjectives, nouns, adverbs, articles, prepositions, and conjunctions) and all grammatical endings on verbs (*-ing, -ed, -en, -s*) have been assigned one point, all words (nouns, verbs, auxiliaries) that are not in their regular form have been assigned two points and all possessive pronouns have been assigned three points (cf. Table 44. p. 51). However, there seems to be no sound basis for such an evaluation. For instance, contrary to Burt and Kiparsky (1972), and Burt (1975), sentence connectives, which were earlier recognized as global errors, have been assigned only one point whereas possessive pronouns, which are, by their definition, local errors, have been given three points. It seems to us that there is no reasonable basis for assigning different points to different errors till enough psycholinguistic work is done to evaluate how much hindrance is caused to communication by which type of error. Based on the available research, one could argue that sentences which have more derivational complexity (in terms of types and numbers of grammatical transformations applied to them) are inherently more difficult than simple sentences.[13] Likewise sentences with central embedding are more difficult than sentences with left or right embedding. Richards and Sampson (1974) have vaguely talked about syntactic and semantic complexity, but even they ignore the relevant psycholinguistic works of Bever and Langendoen (1971) and Bever *et al* (1973, 1974). While Richards and Sampson (1974) talk about 'universal hierarchy of difficulty' (p. 12-13), Dulay and Burt (1975) suggest that there is an acquisition order which is common to L_2 learners of diverse background. As an obvious interpretation of this hierarchy, Burt *et al* (1976, p. 23) suggest that the presence of higher level structures in an L_2 learner's speech implies the previous acquisition of lower level structures (e. g. if an L_2 learner knows how to have a subject-verb agreement in a complex sentence, he knows how to handle it in a simple sentence); conversely, the absence of some lower level structures implies the absence of

the upper level structures. The data provided by Burt *et al* are not very revealing, but the observation made by them is very insightful. We think such implications could be one of the guiding factors in the analysis of errors to determine the transitional knowledge of a language learner. In other words, if one handles a complex sentence (such as "was it a book of science fiction that was bought by Judy's boy friend?") correctly but makes a mistake in handling a related simple sentence (e. g. *What bought by Judy's boy friend"), the mistake should be considered a lapse rather than an error.

There has been wide difference of opinion among error-analysts in regard to the categorization of errors. As Halliday *et al* (1964) observe :

> ".....a given error can be analyzed in two or more ways, to each of which corresponds a different step that could be taken to correct it". (p. 119).

It may be so, but one must have reasons for classifying errors in one way rather than another. Most of the works we have looked into have grammatical categories such as nouns, adjectives, pronouns, determiners, verb forms, concord, conjunction, preposition, lexis etc. Errors under some of these categories (such as determiners, preposition, tense) are classified into errors of omission, addition, substitution and wrong word order. Though such an analysis is convenient for unsophisticated language teachers, it does not go into the depth of the problem. For instance, Ghadessy (1976) has the following classification under "Errors in Tense" :

i. Present instead of Past.
ii. Past instead of Present.
iii. Present instead of Perfect.

Dusková (1969, Table IV, p. 33) has some more details :

i. Present instead of Preterite (i. e. Past)
ii. Present instead of Perfect.
iii. Perfect instead of Preterite.
iv. Preterite instead of Perfect.
v. Pluperfect (i. e. Past Perfect) instead of Preterite.
vi. Confusion of Simple and Continuous forms.
vii. Errors in the Future tense.

Bhatia (1974, Table 3, p. 344) is slightly more specific than Dusková by accounting for Simple Present instead of Present Continuous (cf. Dusková, vi,)

Simple Present instead of Future and by accounting separately for lack of concord in a narrative. However, she does not classify the data further to suggest in what ways the narrative concord rule is violated. A. Sinha (1967) who has made such a classification has found Simple Present being used for Simple Past and vice versa in long narrative and descriptive paragraphs. He discusses how a student, starting a narration in (historical) present, switches over to simple past and comes back again to simple present. On the other hand, cases involving switching over to Simple Present from Simple Past occur mostly in reported speech. A break-up of errors on such a line suggests that the student is not lacking in distinguishing Simple Present from Simple Past, but in the rules regarding the formal consistency of their use in a narrative or a reported speech. A remedial work on this topic should, therefore, use long narrative or descriptive passages with sentences involving reported speech: a mere repetition of the difference between Simple Present and Simple Past will simply bore the student.

Those who view language acquisition as a developmental process and want to analyse errors with a view towards exploring the learner's strategies will not be satisfied with the kind of analysis given by Sinha (1967), Duskovā (1969), Bhatia (1974) and Ghadessy (1976). Since language acquisition strategies consist of rules which the learner has (rightly or wrongly) applied, Dulay and Burt (1972, 1974b, 1975) suggest that the analysis should be done in terms of the application of rules. In other words, does an error indicate that the learner has applied a wrong rule, or has he overgeneralized a rule or is he not aware of the constraints on the application of the rule? For instance, if a learner of English says **hers pajamas* (instead of *her pajamas*), he is applying a wrong rule; if he says *her tooths* (instead of *her teeth*), he is overgeneralizing the plural formation rule and he does not know the constraint on the application of the rule (i.e. it does not apply to *tooth*). At a first glance, these rules seem to be just a formalisation of the old system, but they have far deeper implications than the structuralist analysis of errors. For instance, if someone says (15c) instead of (15a), for a structuralist, he is just omitting a subject. For a transformationalist, he is using a 'conjoined coreference subject deletion rule' in the wrong place [e. g. it has been rightly used in (15b)].

15a. The plane reached Detroit. There it stopped for half an hour.
b. The plane reached Detroit and stopped there for half an hour.
c. The plane reached Detroit. *There stopped for half an hour.

The superiority of the rule-oriented error analysis becomes obvious if we look at syntactic errors (e.g. errors involving word-order, movement and

deletion of constituents, raising etc.). For example, if a structural analyst is given sentences in (16), all he would do is to note that in (16a) *himself* has been wrongly used and in (16b) *he* has been wrongly used. A transformational analyst, on the other hand, would suggest that in (16a) conditions for reflexivization have not been met and, therefore, the rule cannot be applied whereas in (16b) they have been met and the rule must be obligatorily applied.[14]

16a. Bob_i proved that $\left\{ \begin{matrix} \text{he}_i \\ *\text{himself}_i \end{matrix} \right\}$ was innocent.

b. Bob_i proved $\left\{ \begin{matrix} \text{himself}_i \\ *\text{him}_i \end{matrix} \right\}$ to be innocent.

A transformational analysis can explain the formation of infinitives [such as in (17)] in terms of a transformation called 'Raising' and can also explain which main verbs (e.g. factive verbs) do not permit the raising of their subordinate clauses:

17a. He wanted that he should be healthy.
b. He wanted to be healthy.

18a. He found out that he was healthy.
b. He found out to be healthy.

Though it is not possible for us to give a detailed list of categories from the transformational point of view for lack of space, we suggest that an error should be analyzed broadly in terms of (a) the wrong application of a rule and (b) the omission of a rule. In the first case, the category should be further scrutinized to find out whether the strategy involves overgeneralization of a rule. If so, whether it is because the constraint on the rule is not known or because there is an interlingual interference (i.e., the error is made because of the influence of the mother tongue or some other language known to the learner). For instance, a Hindi-knowing teacher of English would suggest that the deletion of the subject in (15c) is not just a case of wrong application of 'conjoined coreference subject deletion rule' due to overgeneralization; it is the application of 'the coreference subject deletion rule' in Hindi which permits inter-sentential deletion of a coreferential subject. A similar scrutiny can be made of all serious errors made by the learner. An immediate advantage of such a method of analysis is that the cause of the error is explained in the process, and one does not have to speculate it.

To sum up, error analysis can be an effective aid to second language remedial teaching if errors are treated as evidence of learners' strategies, and analysed in terms of their significance. An exhaustive list of grammatical items with the number of errors listed under them simply tells us what has gone wrong how many times; it does not tell us why. A rule-oriented analysis explains why these errors are made and implies what ought to be done to equip the language learner with better strategies. We have given priority to errors that cause hindrance to communication but argued that 'local' errors that are stigmatized or considered 'foreign' by the native speaker should not be ignored.

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Footnotes

1. Compare Nemser (1971):
   "Comparisons of the distributional rules in the two languages favoured as many incorrect as correct predictions." (p. 96).
2. The difference Ms. Ervin-Tripp came across was, she thinks, due to age. Older students had a fuller semantic system and the rate of their development did not look the same as that of younger students.
3. Rubin (1975) argues that the difference in the rate of L-2 acquisition may be due to age, aptitude, motivation and opportunity for the use of L-2.
4. Dulay and Burt (1972) define 'goof' as "the productive error made during the language learning process". In a different paper (i.e. Dulay and Burt 1974a) they suggest that the term 'goof' "signifies deviation from syntactic structures which native adult speakers consider grammatically correct". A detailed discussion on the subject is found in Burt and C. Kiparsky (1972).
5. Dulay and Burt (1972) put errors in three broad categories: (a) *developmental* (those that are similar to L-1 acquisition errors), (b) *interference* (those that reflect the structure of speaker's L-1) and (c) *unique* (those that are neither developmental nor interference. *Unambiguous* errors mean errors that are either developmental or due to interference. However, Dulay and Burt's use of the term *interference* for L-1 interference only is rather arbitrary, for there may be interference due to analogy with another L-2 structure as well (cf. Dusková, 1969).
6. Dulay and Burt define *developmental* errors as errors that are similar to those made by L-1 learners. A more precise definition of the term could be given by contrasting them with *fossilized* errors (cf. Selinker, 1972). Fossilization is a linguistic phenomenon which the speaker of a language tends to keep in his interlanguage irrespective of his level of instruction in the target language.
7. Chomsky (1965) makes a distinction between what a native speaker knows of his language (i.e. his *competence*) and how he uses it for communicative purposes (i.e. his

performance). Corder (1971) extends this distinction to L–2 learning. He suggests that an L–2 learner might make errors because he has not acquired full command of the language system yet or because he has failed to utilise the command of the language correctly. The error due to the former factor is a competence error, the error due to the latter factor is a performance error.

8. For instance, A. Sinha's (1967) work is based on the analysis of 550 examination scripts of college freshmen from different parts of India. It is difficult to contact the informants personally when their number is large and when they come from widely spread regions.

9. Burt (1975) does not mention whether (11a) is a real error. On the basis of our experience of teaching English to foreigners we do not think that such an error is possible. In so far as we know, languages of the world have either subject-verb-object order, or subject-object-verb order or verb-subject-object order. No known language has an object-verb-subject order. If (11a) is a real error, it simply indicates that the person who makes it has little ability to (conceptually) organize the relation between verb, subject and object. In other words, his problem is much deeper than merely having a wrong word order.

10. This needs to be emphasised in view of language teachers' simple-minded definition of an error as "any deviation from what expert native speakers regard as prescriptive norms".

11. Though Kachru's argument has some substance, the way he distinguishes an 'error' from a 'deviation' is rather arbitrary. For example, he claims that **He can speaks English* is an error but *this all* (for 'all this') is a deviation. We wonder what is culture-bound about *this all*; to us, it is a clear case of mother tongue interference. (Compare Hindi *yah sab*).

12. This applies to grammar and lexicon only. In so far as the phonology of Indian English is concerned, it has its own "deviant" forms (e.g. 'th] for /ϴ/, [d] for /ð/.

13. According to the transformational-generative approach to language, the complexity of a surface sentence is judged by the number of transformations applied to its underlying form. For instance, (id) is derivationally more complex than (iib) because the former is derived by applying three transformations, the latter by only one transformation.

ia. Judy's boy friend bought a book of science fiction

Passive ⟹

b. A book of science fiction was bought by Judy's boy friend.

Extraposition ⟹

c. It was a book of science fiction that was bought by Judy's boy friend.

Question formation ⟹

d. Was it a book of science fiction that was bought by Judy's boy friend?

iia. Somebody bought a book of science fiction.

Question formation

b. Who bought a book of science fiction?

14. Reflexivization applies in (16b) because the noun phrase in the infinite group becomes the clausemate of the subject of the main verb; it does not apply in (16a) because the noun phrase in the finite complement clause cannot be the clausemate of the subject of the main verb.

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